



**Global D
Therapeutic
arsenal**

MINITEK - MICROTEK



Traumatology and reconstruction of the upper 2/3

 **Osteògenos**

Distribuidor en exclusiva para España



Partner for your surgery

Global D, the product of SERF® (1973) and tekka® (2000) joining forces, is a French company specialised in the design, manufacturing and sale of medical devices intended for dental, orthodontic and maxillofacial surgery.

With **more than 15 years** of clinical and manufacturing experience in maxillofacial surgery, Global D is now the top French company in this area.

With our R&D department providing our clients with continuous improvements, we collaborate with surgeons to design **innovative product ranges**.

Our mission is to help surgeons to work better and to optimize patient care.

MINITEK / MICROTEK

MINITEK/MICROTEK a complete range for osteosynthesis and reconstruction of the upper two-thirds of the skull. It is in particular indicated for:

- Trauma surgery
- Closing of the cranial flaps after a neurosurgery
- Orthognatic surgery (maxillary)

The MINITEK/MICROTEK range can also be used for genioplasty only with the Chin Wing plate described page 10.

This is an **extensive range of different-shaped plates** and screws available in numerous different lengths, all **colour-coded** for easy identification.



Global D

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 Made in
France

Performance for your expertise

A commitment to service

Because the patient is your priority.

Our mission: to provide you with solutions and management systems to make your work easier day to day.

Global D adapts to your practice and guarantees a responsive service.

A personalised response: marketing and administrative team provides assistance from 8.30 am to 6.00 pm from Monday to Friday (local time).

The product commitment

Because the product should be at the service of your practice.

Each of our product lines comprises ergonomic devices, which are adapted to the development of your technique. All of our products, which are coloured by anodic oxidation, are easily identifiable and offer an additional guarantee of safety for the patient.

The quality commitment

Because customer satisfaction is everybody's business.

Always attentive to the need of practitioners, our teams commit their energy to continually optimize our services, procedures, and support, above and beyond simple compliance with the regulatory standards.

To maintain the highest possible performance, we purposely sought out LNE/G-MED (a French notified body) to certify our quality system and our product lines.



CE 0459

Introduction

| | |
|-------------------------|---|
| Technical specificities | 5 |
|-------------------------|---|

Minitek

| | |
|---|----|
| Self-drilling screws | 7 |
| Straight plates | 8 |
| L & J-shaped plates | 8 |
| Orbital plates | 9 |
| Other plates (3D, X, Y, T, Star-shaped) | 9 |
| «Chin Wing» genioplasty plates | 10 |

Microtek

| | |
|--|----|
| Self-drilling screws | 13 |
| Straight plates | 14 |
| L & J-shaped plates | 14 |
| Other plates (3D, Orbital, H, X, Y, T) | 15 |

Orbital floor plate and meshes

| | |
|------------------------------|----|
| Titanium orbital floor plate | 17 |
| Titanium meshes | 20 |

Ancillary instruments

| | |
|-------------------------|----|
| Containers | 23 |
| Screwdrivers and shafts | 24 |
| Forceps | 24 |
| Drill bits | 25 |

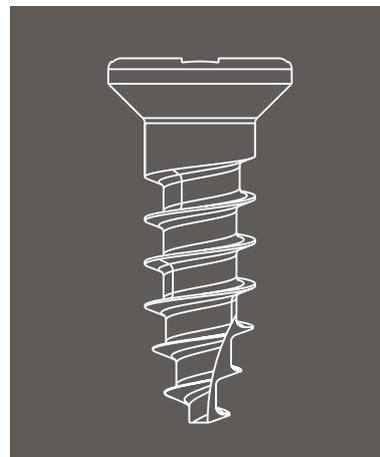
EASYTEK: The simplicity of sterile instrumentation

| | |
|----------------|----|
| The concept | 26 |
| The advantages | 27 |

A self-drilling screw thread

Global D, with its extensive experience in maxillofacial surgery gained over the past 15 years, has set itself the mission of maximising the quality and efficacy of its osteosynthesis products, notably by developing a self-drilling thread for all of its screws.

The asymmetric thread has wider wings for better primary bone fixation. The screw tip has been sharpened to ensure the thread penetrate into the bone. In addition, the self-tap combined to the self-drilling thread sheds bone chips more easily, thereby improving screw penetration.



Characteristics of the Minitek / Microtek range

- The choice of two diameters of self-drilling screws Ø 1.2 mm and Ø 1.5 mm
- A single screwdriver
- Malleable T40 plates (Grade II titanium - ISO 5832-2) 0.2 mm, 0.4 mm or 0.6 mm thick and with a low plate/screw profile
- A wide range of plates shapes and meshes to cover all indications
- Self-drilling screws with an asymmetrical thread and wider wings for better primary bone fixation
- A compact, ergonomic container dedicated to the closing of the cranial flaps after a neurosurgery
- A colour code for each screw diameter and the associated plates:

| | | Associated colours |
|---------------|--|---|
| Screws | Self-drilling Microtek screws - Ø 1.2 mm |  |
| | Self-drilling Minitek screws - Ø 1.5 mm |  |
| | Emergency Minitek screws - Ø 1.8 mm |  |
| Plates | Microtek plates |  |
| | Minitek plates |  |

Minitek



Self-drilling screws

- Self-drilling thread
- No need for pre-drilling
- Bone preservation
- Colour code for identification of screw diameter
- Prehension shaft/screw head insured
- Stability during screwing



Self-drilling cross-drive screws - Ø 1.5 mm

|  | 1.5 mm | Colour code | Length | Ref. number |
|--|---|-------------|--------|-------------|
|  |  | | 4 | VA1.5KL4 |
| | | | 5 | VA1.5KL5 |
| | | | 6 | VA1.5KL6 |
| | | | 7 | VA1.5KL7 |
| | | | 9 | VA1.5KL9 |
| | | | 11 | VA1.5KL11 |
| | | | 13 | VA1.5KL13 |
| | | | 15 | VA1.5KL15 |

Emergency self-drilling cross-drive screws - Ø 1.8 mm

|  | 1.8 mm | Colour code | Length | Ref. number |
|---|---|-------------|--------|-------------|
|  |  | | 5 | VA1.8KL5 |
| | | | 7 | VA1.8KL7 |

Straight plates



Straight plates - 0.6 mm

| 0.6 mm | Colour code | Holes | Bridge | Rigidity | Ref. number |
|--------|-------------|-------|------------|----------|-------------|
| | ■ | 2 | medium | + - | MNP2TM |
| | | | long | | MNP2TL |
| | | 4 | bridgeless | | MNP4T |
| | | | medium | | MNP4TM |
| | | | long | | MNP4TL |
| | | 6 | bridgeless | | MNP6T |
| | | | medium | | MNP6TM |
| | | | long | | MNP6TL |
| | | 8 | bridgeless | | MNP8T |
| | | 16 | bridgeless | | MNP16T |

L & J-shaped plates

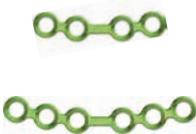


L & J-shaped plates - 0.6 mm

| 0.6 mm | Colour code | Bridge | Rigidity | Ref. number L | Ref. number J |
|--------|-------------|---------------------|----------|---------------|---------------|
| ■ | ■ | bridgeless | + - | MNPL | MNPJ |
| | | intermediate | | MNPLI | MNPJI |
| | | medium | | MNPLM | MNPJM |
| | | medium intermediate | | MNPLMI | MNPJMI |
| | | long | | MNPLL | MNPJL |

Orbital plates

Orbital plates - 0.6 mm

| 0.6 mm | Colour code | Holes | Rigidity | Ref. number |
|---|---|-------|----------|-------------|
|  |  | 4 | + - | MNPORB4T |
| | | 6 | | MNPORB6T |

Other plates



X, Y, T-shaped plates - 0.6 mm

| 0.6 mm | Colour code | Shape | Holes | Rigidity | Ref. number |
|---|---|-------|-------|----------|-------------|
|  |  | X | 6 | + - | MNPX6T |
| | | | 7 | | MNPX7T |
| | | Y | 5 | | MNPY5T |
| | | | T | | 6 |

Star-shaped plate - 0.6 mm

| 0.6 mm | Colour code | Holes | For trephine | Rigidity | Ref. number |
|---|---|-------|--------------|----------|-------------|
|  |  | 7 | Ø10 mm | + - | MNPETOIL10 |

3D Square, rectangular plates - 0.6 mm

| 0.6 mm | Colour code | Shape of the mesh | Holes | Rigidity | Ref. number |
|---|---|-------------------|-------|----------|-------------|
|  |  | Square | 4 | + - | MNP3D4TC |
| | | Rectangular | | | MNP3D4TR |

«Chin Wing» genioplasty plates

- Global size of the plate reduced
- Two horizontal anchorages for the top valve and one for the bottom valve (optional)
- A bridge with a **square section** that enables an **easier folding**



Chin Wing plate - 0.8 mm

| 0.8 mm | Colour code | Bridge length | Rigidity | Ref. number | Height in mm |
|--------|-------------|---------------|----------|-------------|--------------|
| | | short | + - | PGENIOWINGS | 10,3 |
| | | medium | | PGENIOWINGM | 13,5 |
| | | long | | PGENIOWINGL | 16,7 |

Chin Wing plate (references : PGENIOWINGS, PGENIOWINGM or PGENIOWINGL), must be used with VA1.5KL4 or VA1.5KL5 screws (or VA1.8KL5 emergency screws) to avoid lesions of the dental nerve.
The Chin Wing plate must always be placed in association with a genioplasty plate.

Minitek Plates



Small size of the two horizontal anchorages that allow to avoid dental roots and the close nerve.
In case of reduced space, anchorages facilitate the plate's positioning (in case of genioplasty and sagittal split at once).



Markings at the back that enable to guide the folding to reach an angulation of 90° to maintain the bottom osseous valve with the required spacing by a plan lean.

Bridge with a square section for an easy folding

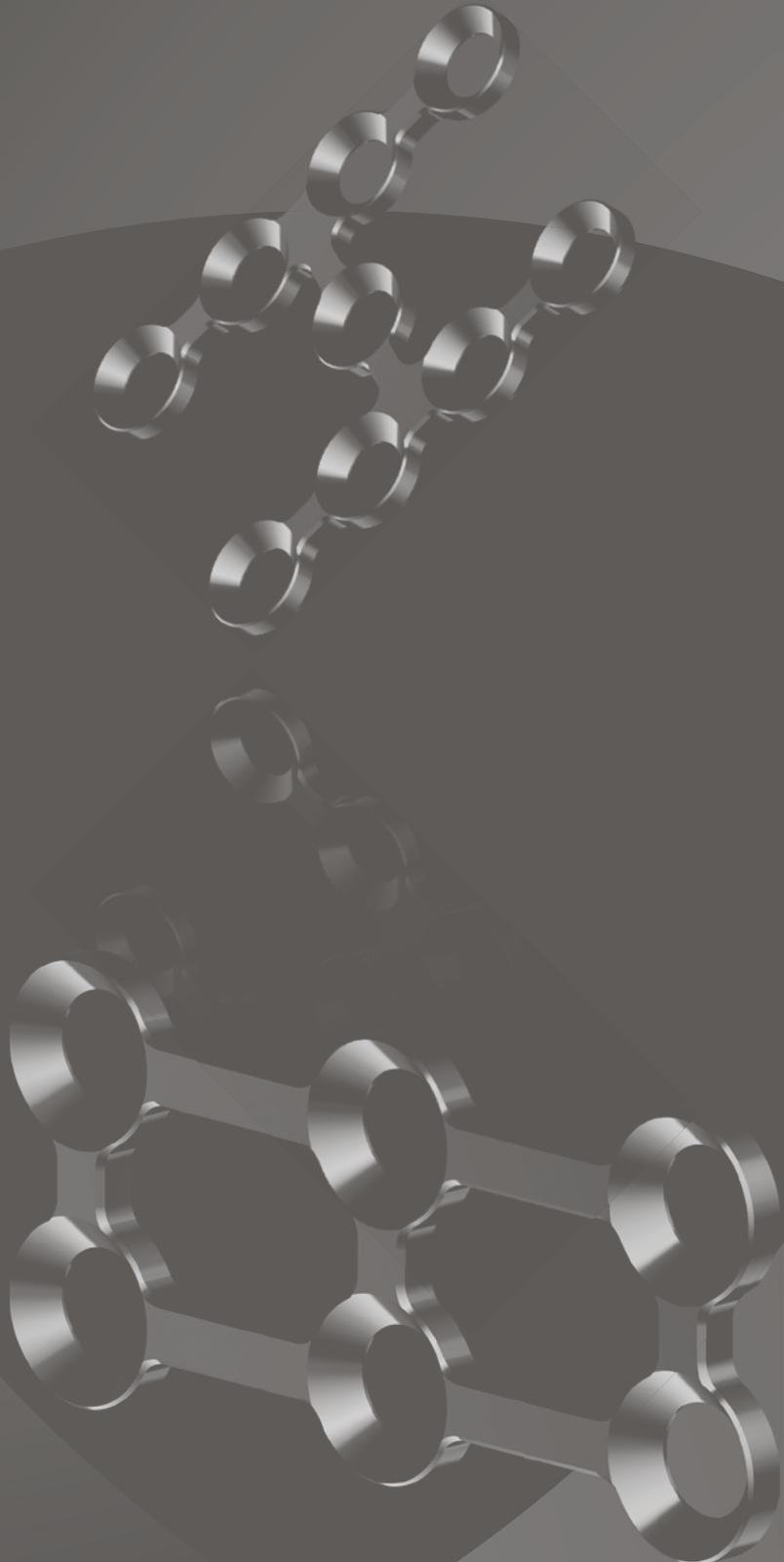


Markings in the front that enable to guide the preparation of a hook to maintain the bottom osseous valve with the required spacing.

You have to put your hand around the plate to control when cutting.
So as to hold back the fragment and avoid this one to fall on the patient's tissue..



Microtek



Self-drilling screws

- Self-drilling thread
- No need for pre-drilling
- Bone preservation
- Colour code for identification of screw diameter
- Prehension shaft/screw head insured
- Stability during screwing



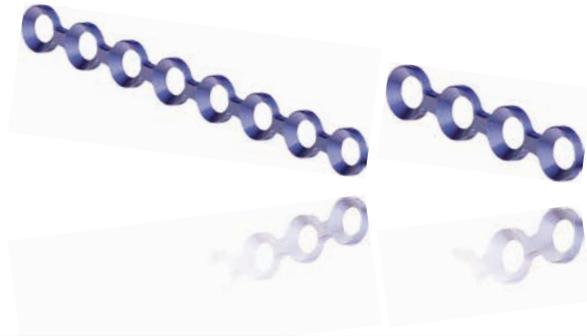
Self-drilling cross-drive screws - Ø 1.2 mm

|  1.2 mm | Colour code | Length | Ref. number |
|--|---|--------|-------------|
|  |  | 4 | VA1.2KL4 |
| | | 5 | VA1.2KL5 |
| | | 6 | VA1.2KL6 |
| | | 7 | VA1.2KL7 |
| | | 8 | VA1.2KL8 |
| | | 9 | VA1.2KL9 |
| | | 10 | VA1.2KL10 |
| | | 11 | VA1.2KL11 |
| | | 12 | VA1.2KL12 |

Emergency self-drilling cross-drive screws - Ø 1.5 mm

|  1.5 mm | Colour code | Length | Ref. number |
|--|---|--------|-------------|
|  |  | 5 | VA1.5KL5 |
| | | 7 | VA1.5KL7 |

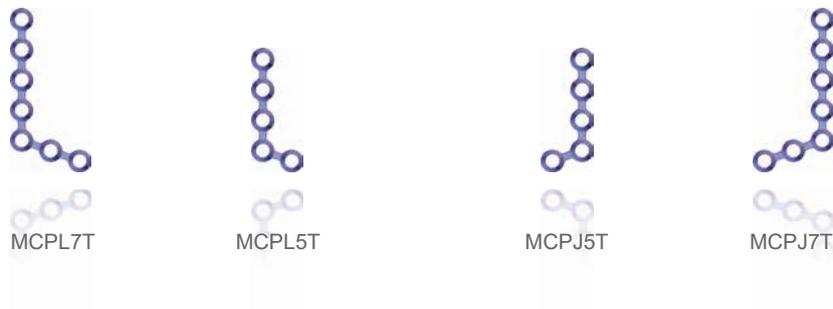
Straight plates



Straight plates - 0.6 mm

| 0.6 mm | Colour code | Holes | Bridge | Rigidity | Ref. number |
|--|---|-------|------------|----------|-------------|
|  |  | 4 | bridgeless | + - | MCP4T |
|  | | 6 | | | MCP6T |
|  | | 8 | | | MCP8T |
|  | | 16 | | | MCP16T |
|  | | 24 | | | MCP24T |

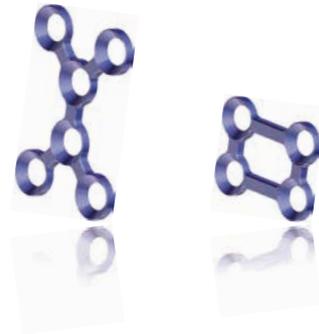
L & J-shaped plates



L & J-shaped plates - 0.6 mm

| 0.6 mm | Colour code | Bridge | Rigidity | Ref. number L | Ref. number J |
|--------|---|------------|----------|---------------|---------------|
| |  | bridgeless | + - | MCPL5T | MCPJ5T |
| | | | | MCPL7T | MCPJ7T |

Other plates



Orbital plates - 0.6 mm

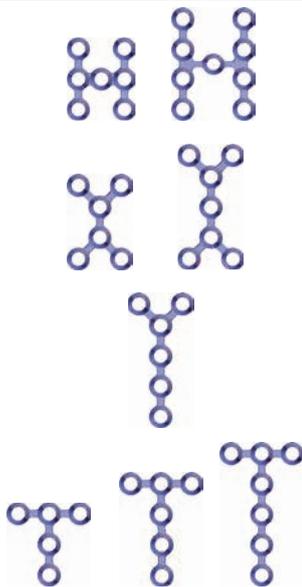
0.6 mm



| Colour code | Holes | Rigidity | Ref. number |
|---|-------|----------|-------------|
|  | 8 | + - | MCPORB8T |

H, X, Y, T-shaped plates - 0.6 mm

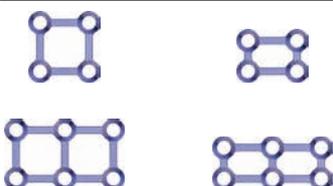
0.6 mm



| Colour code | Shape | Holes | Rigidity | Ref. number |
|---|-------|-------|----------|-------------|
|  | H | 7 | + - | MCPH7T |
| | | 9 | | MCPH9T |
| | X | 6 | | MCPX6T |
| | | 7 | | MCPX7T |
| | Y | 6 | | MCPY6T |
| | T | 5 | | MCPT5T |
| | | 6 | | MCPT6T |
| | | 7 | | MCPT7T |

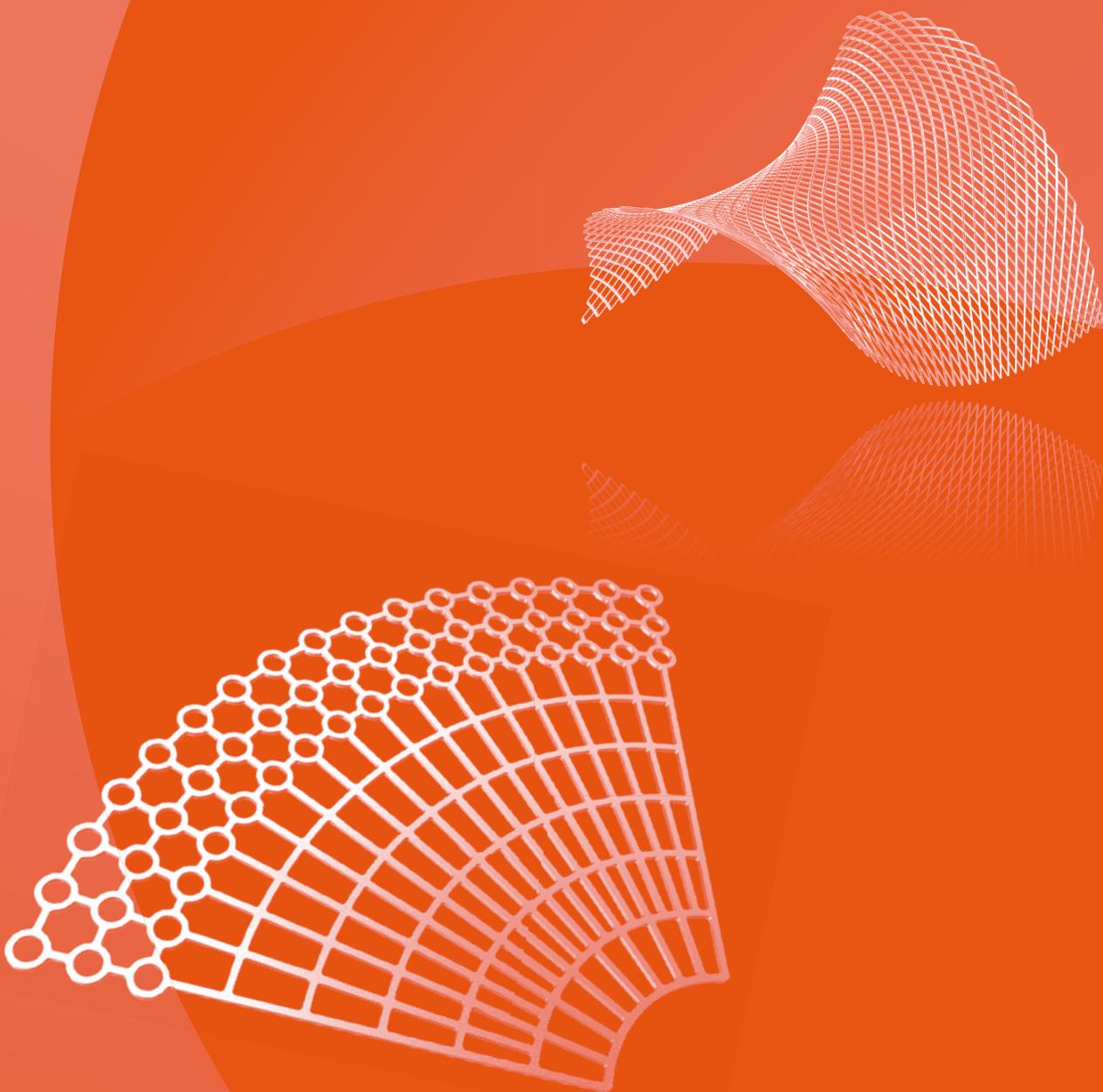
3D square, rectangular plates - 0.6 mm

0.6 mm



| Colour code | Shape of the mesh | Holes | Rigidity | Ref. number |
|---|-------------------|-------|----------|-------------|
|  | Square | 4 | + - | MCP3D4TC |
| | Rectangular | | | MCP3D4TR |
| | Square | 6 | | MCP3D6TC |
| | Rectangular | | | MCP3D6TR |

Orbital floor plate and meshes



Operating technique



Orbital floor fractures

Orbital floor fractures, either isolated or combined with other facial bone fractures, are most commonly encountered in the case of trauma of the middle third of the face.

The objective of orbital reconstruction is to reduce the fracture and restore the initial volume and morphology of the orbit [1] [2] [4] [5].

Depending on the severity of the fracture and whether orbital reconstruction is indicated, the best aesthetic and functional results are obtained with surgical treatment carried out as soon as possible after the trauma [2] [3] [4].

Orbital floor reconstruction using a radial-shaped titanium plate is particularly suitable for repairing bone fractures of more than 1.5 cm² [4] [5]. It ensures precise anatomical reconstruction and encourages good bone stability.

Indications

The radial-shaped titanium orbital floor plate is indicated for trauma surgery and reconstruction of the orbit:

- Stabilization and rigid fixing of the fractures of the orbital floor associated or not to a fracture of the medial side of the orbit.

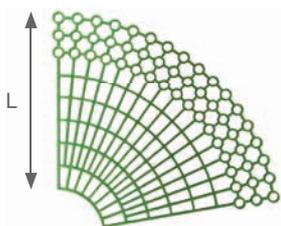
Characteristics

Material: T40 (Grade II titanium conforming to ISO 5832-2)

- Malleable, easy to cut plate
- The radial-shaped design of the plate makes it easy to adapt to the orbital morphology and minimises cutting
- The choice of three fixation holes in each segment makes screw placement easy

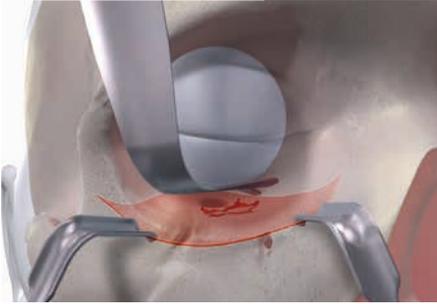
Titanium orbital floor plate - 0.4 mm

0.4 mm



| Colour code | Dimension L | Rigidity | Ref. number |
|---|-------------|----------|-------------|
|  | 47.3 mm | + - | PORB |

1- Exposure



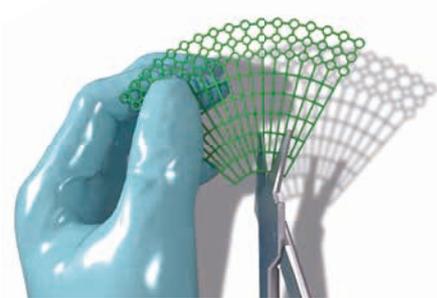
Expose the fracture using an orbital retractor* to retract the eyeball. After exposure, perform a periorbital dissection.

It is important to retract the intraorbital soft tissues correctly.

*The orbital retractor is not supplied by Global D. It is the responsibility of the practitioner to check that it is available before any surgery is performed.

2- Sizing and modelling the plate

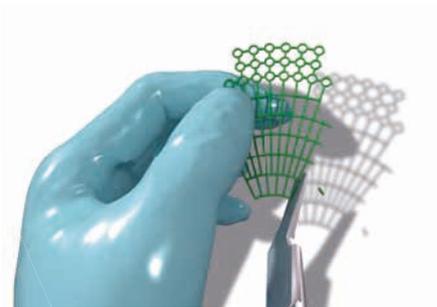
Adjustment and modelling



Cut the plate to the anatomical size of the orbit using the cutters provided.

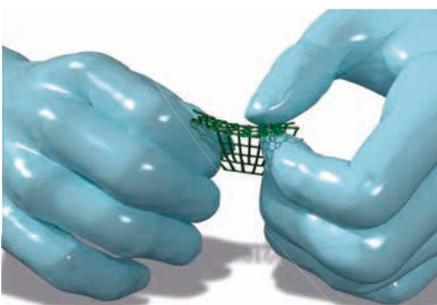
The cut plate must be wide enough to cover the entire bone defect or fracture.

Determine whether the anterior part of the mesh plate will extend over the infraorbital rim or whether fixation will be posterior to the infraorbital rim.



Trim off any sharp edges on the plate to protect the soft tissues.

Leave enough holes to ensure optimum fixation of the plate over the infraorbital rim or on the orbital floor.

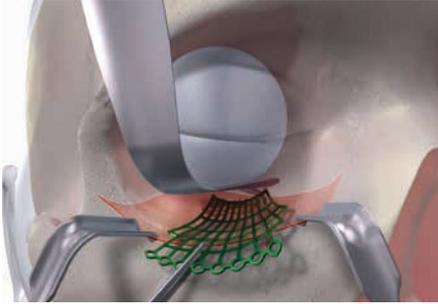


Shape the plate to match the characteristics of the orbital floor and the orbital rim and to accommodate the anatomical structures of these areas.



Do not bend a titanium osteosynthesis system plate several times in the same place and avoid inverting the folds. Doing so can cause weaknesses resulting in the medical device breaking.

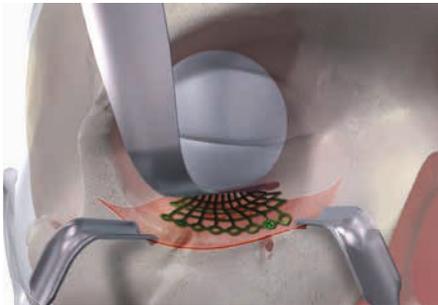
Inserting the plate



When inserting the plate, the intraorbital soft tissues must be retracted correctly to avoid their being entrapped by the plate.

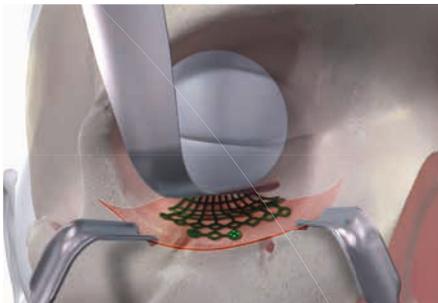
The plate must be positioned so as to obtain adequate restoration of the orbital volume and ensure stability of the orbital floor.

3- Implant fixation



Fix the plate using 1.2 mm or 1.5 mm diameter screws to ensure stability of the implant.

The screws must be placed on the orbital floor, just posterior to the infraorbital rim.



Alternatively, the anterior part of the mesh plate can be extended over the orbital rim and the screws inserted on the anterior face of the maxilla.

4- Post-operative check

After inserting the implant, perform a forced duction test to check that the plate has not created a decrease in ocular mobility.

Ref. numbers

1. *Edward Ellis III, Yinghui Tan*
Assessment of internal orbital reconstructions for pure blowout fractures: cranial bone grafts versus titanium mesh
J. Oral Maxillofac. Surg. 61:442-453, 2003
2. *Mario Francisco Gabrielli, Marcelo Silva Monnazzi, Luis Augusto Passeri, Waldner Ricardo Carvalho, Marisa Gabrielli, Eduardo Hochuli-Vieira*
Orbital wall reconstruction with titanium mesh: Retrospective study of 24 patients
Craniomaxillofac. Trauma Reconstruction 2011; 4:151-156
3. *C. Jaquiéry, C. Aeppli, P. Cornelius, A. Palmowsky, C. Kunz, B. Hammer*
Reconstruction of orbital wall defects: critical review of 72 patients
Int. J. Oral Maxillofac. Surg. 2007; 36: 193-199
4. *Francesco Bairo*
Biomaterials and implants for orbital floor repair
Acta Biomaterialia 7 (2011) 3248-3266
5. *A. Momjian, J. Heuberger, P. Scolozzi*
Reconstruction orbitaire post-traumatique par grilles en titane préformées versus non préformées
Rev. Stomatol. Chir. Maxillofac. 2011;112:145-150

Indications



The titanium mesh is designed for use in reconstructive surgery, cranio-maxillofacial traumatology and in the treatment of alveolar ridge bone loss in pre-implant surgery (for the reference ME02).

Indications in cranio-maxillofacial surgery

- Closing of the cranial flaps after a neurosurgery
- Stabilization and fixation of cranio-maxillofacial fractures
- Overlaying bone abnormalities
- Overlaying and reconstruction of bone defects in the upper two-thirds of the skull, in particular after tumour resection or trauma:
 - Cranial vault
 - Maxillary sinus wall
 - Orbital region

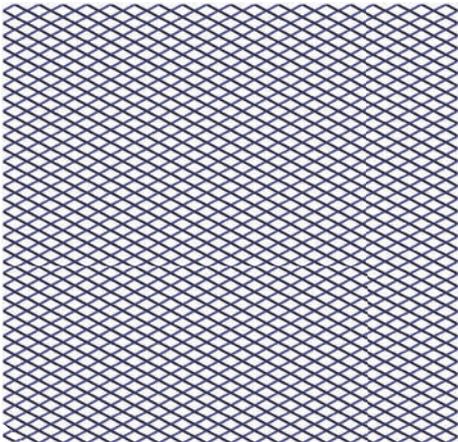
Use in cranio-maxillofacial surgery

- Using the cutters, cut a piece of titanium mesh into a straight or curved section so that it overlays the edges of the bone loss
- Shape the mesh so that it is the best possible fit for the recipient site
- Fix the mesh using as many of the associated Minitex/Microtek screws (Ø1.2 mm or 1.5 mm) as necessary, for optimum stabilization

Micro mesh - 0.2 mm

- Malleable mesh
- Easy to cut
- Particularly suitable for overlaying bone defects, in particular after tumour resection
- Diamond-shaped mesh
- Grade II titanium (T40 - ISO 5832-2)

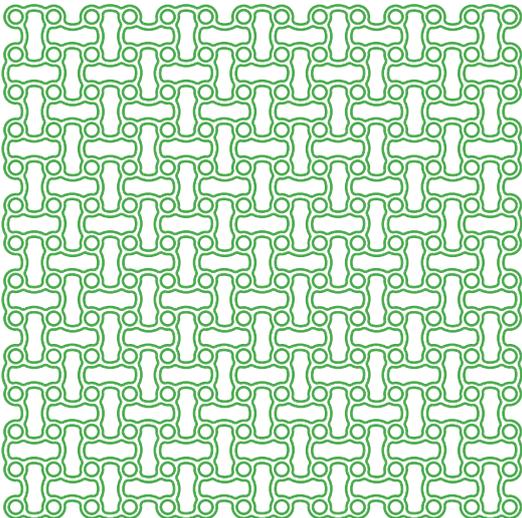
Micro mesh - 0.2 mm

| 0.2 mm | Colour code | Dimensions | Rigidity | Ref. number |
|--|---|------------|----------|-------------|
|  |  | 60 X 60 mm | + - | ME02 |

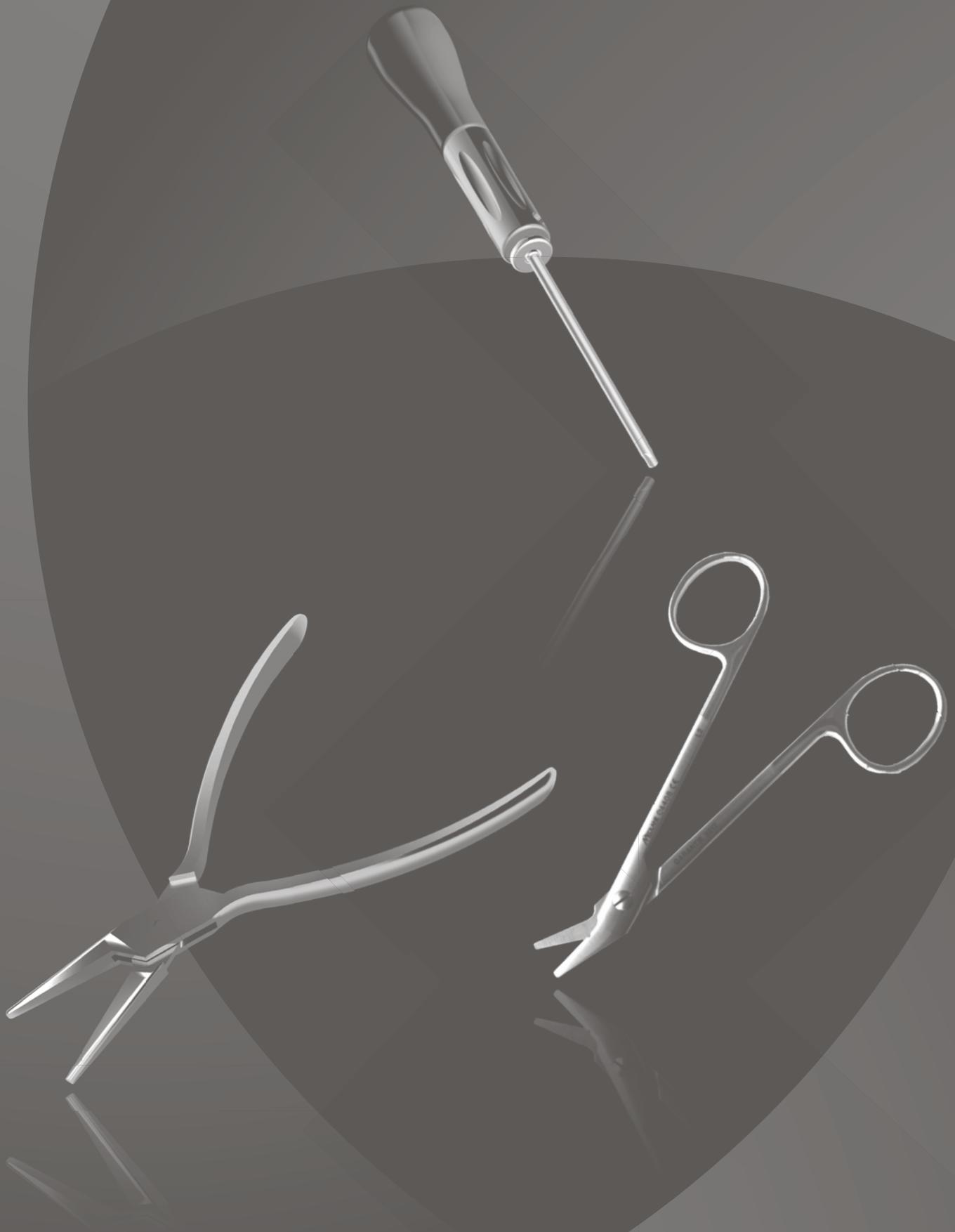
3D mesh - 0.4 mm

- Malleable mesh
- Easy to cut
- 3D design makes it easier to model the mesh in three dimensions, avoiding folded or overlapping areas
- Precise matching to the characteristics of each anatomical area
- Grade II titanium (T40 - ISO 5832-2)

3D mesh - 0.4 mm

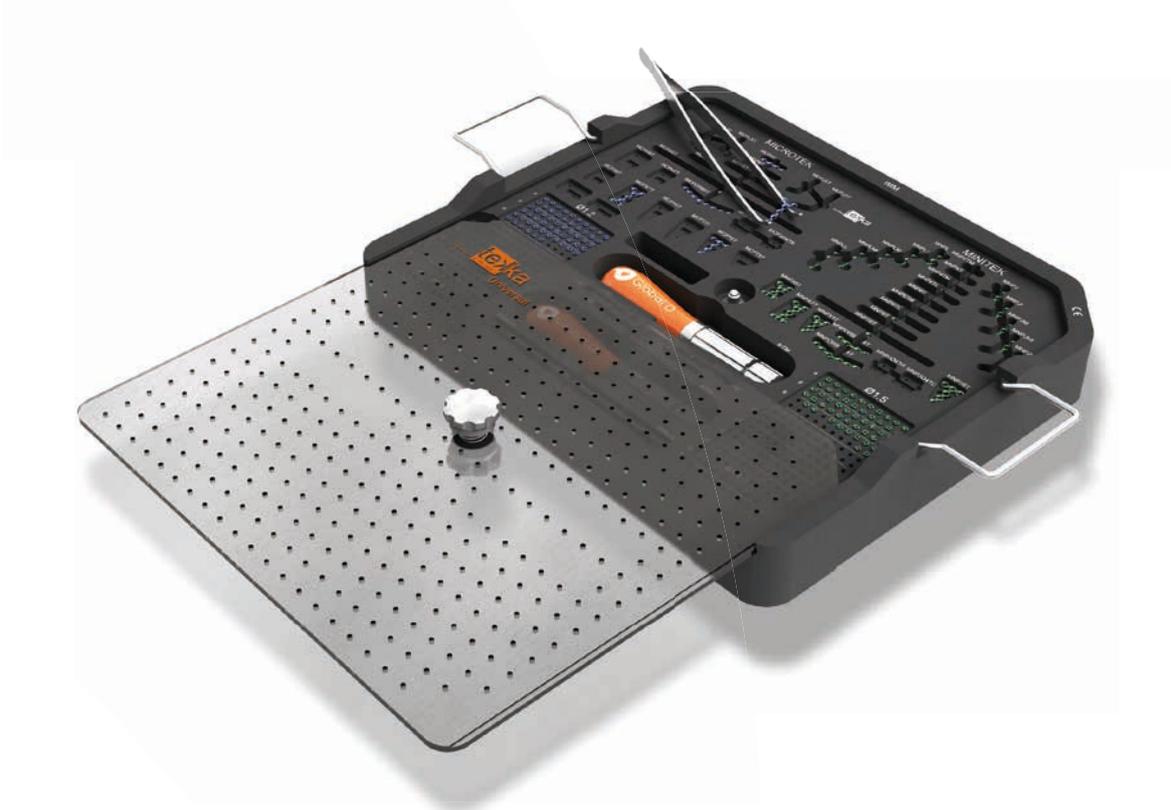
| 0.4 mm | Colour code | Dimensions | Rigidity | Ref. number |
|---|---|--------------|----------|-------------|
|  |  | 70 X 70 mm | + - | ME04 |
| | | 100 X 100 mm | | ME04L |

Ancillary instruments



Containers

Minitek / Microtek container - IMM



Container dedicated to neurosurgery - CNEURO

Typical composition of CNEURO:

- Handles and shafts of the screwdriver
- Drill bits
- 3D mesh
- Star-shaped plate
- Minitek plates (straight, 3D square and rectangular, X, Y, T-shaped)
- Self-drilling Minitek screws $\varnothing 1.5$ mm, length 4 and 5 mm
- Emergency Minitek screws $\varnothing 1.8$ mm length 5 mm



Screwdriver and shafts

Mobile handle for self-retaining shaft

Scale 3/4



| Handle | Ref. number |
|--------|-------------|
| Mobile | MTM |

Removable and self-retaining screwdriver shafts

| Shaft | Screwdriver head associated | Colour of the associated screws | Diameter of the associated screw | Ref. number |
|-------|-----------------------------|--|----------------------------------|-------------|
| Short | cross-drive |  | 1.2 mm | ACT1K |
| Long | |   | 1.5 mm 1.8 mm | ALT1K |

Forceps and scissors

Modeling forceps

Scale 3/4



| Shape | Ref. number |
|-------|-------------|
| Flat | PPM |

Holding forceps

Scale 3/4



| Ref. number |
|-------------|
| PPH-2 |

Scissors for titanium meshes



| Ref. number |
|-------------------|
| CISEAUX_MAILLE_TI |

Drill bits

Standard drill bits

| | Colour ring | Colour code of the associated screw | Diameter of the associated screw | Drill stop | Total length | Ref. number |
|---|-------------|-------------------------------------|----------------------------------|------------|--------------|-------------|
|  | ■ | ■ | 1.2 mm | 5 mm | 50 mm | FO0.8B5 |
| | | | | 8 mm | | FO0.8B8 |
|  | ■ ■ | ■ ■ | 1.5 mm | 5 mm | | FO1.1B5 |
| | | | 1.8 mm | 15 mm | | FO1.1B15 |

Drill bits with dental tip

| | Colour ring | Colour code of the associated screw | Diameter of the associated screw | Drill stop | Total length | Ref. number |
|---|-------------|-------------------------------------|----------------------------------|------------|--------------|-------------|
|  | ■ | ■ | 1.2 mm | 9 mm | 35 mm | FOS0.8 |
|  | ■ | ■ ■ | 1.5 mm 1.8 mm | 12 mm | | FOS1.1 |

The concept

To meet your expectations and the requirements for traceability, Global D provides an ergonomic sterile packaging solution.

We provide a selection of the most commonly used combinations of osteosynthesis plates and screws, specifically designed for maxillofacial surgery.



List of existing combinations on request.

The pack

Each pack can hold one or several plates.

The **screw holder** is packed inside the lidded double blister and can hold up to 12 screws.

This system enables an easy and secure self-retaining prehension of the screws.



A sterile pack dedicated to neuro surgery

- Specially dedicated to neurosurgery. This sterile pack (Ref. number ETMN2TL-Kx) is indicated for the closing of cranial flaps.
- It contains 3 Minitex straight plates 2 holes of 0.6 mm thickness and 6 self-drilling screws of Ø1.5 mm length 4 or 5 mm.
- In addition, only the mobile screwdriver handle and the self-retaining shaft axe are required in terms of instrumentation.

The advantages

Traceability

The information concerning manufacturing, product Ref. number and batch numbers is easily identifiable.

Each pack contains 4 self-adhesive labels specifically designed for the clinic/hospital and patient medical files. All the information is therefore preserved enabling reliable and effective traceability of the implanted products.



Simplicity & Usability

- The “ready to use” solution of sterile products
- Optimization of preparation costs (cleaning, disinfection, sterilization)
- Ease of handling and storage optimization
- Clear and legible labelling
- Adhesive tapes under the pack for stable fixation to the table enabling easy impaction of the screws



Security

- Double packaging, sterilized using gamma rays
- Sterilization indicator
- CE marking
- Traceability via batch number

These products are medical devices of class I, IIa or IIb and carry the EC marking in accordance with Directive 93/42/EEC. It is possible that medical devices presented are not available for sale in all countries. Please contact the sales department of Global D for more information on product availability.

Please check the instructions before use. If in doubt please contact the sales department of Global D.

The instructions may in some cases be dematerialized. For that, a QR code and a URL link are provided on the label of the device. Print instructions are still available for every request within 7 days. The request must be made to the following address: quality@globald.com



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